



# FIRE-X-TROL<sup>®</sup>

Wet Pipe Sprinkler System Expansion Tanks



For the Absorption of Expanded Fluids



# FIRE-X-TROL®

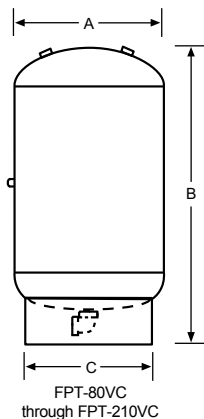
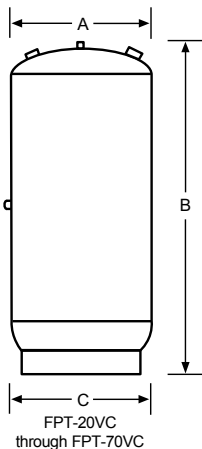
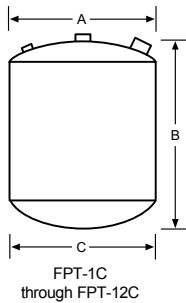
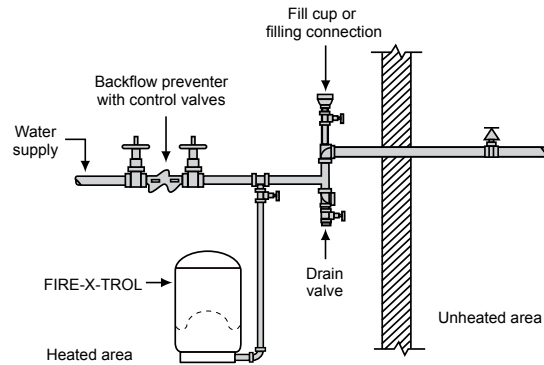
Fire-X-Trol® expansion tanks prevent damage to fire protection systems by accommodating the expanded volume of system fluids that result from temperature changes. This keeps the system pressure below the pressure limitations of the system components. Fire-X-Trol can be used with water, glycerine and propylene glycol systems.



## Features

- For use with fire protection anti-freeze systems per NFPA 13, 2010 TIA 10-2 edition.
- Meets all ASME Section VIII, Division 1 Standards.
- UL® Listed; FM Approved.
- Steel shell with stainless steel system connection.
- Polypropylene liner to help prevent system corrosion.
- High performance elastomer compound diaphragm.
- Available in sizes from 1.5 to 90 gallons.
- Factory pre-charge: 25 psig.

## Typical Installation



## In-Line Models Specifications

| Model Number | Tank Volume (Gallons) | Max. Accept. Volume (Gallons) | A Diameter (Inches) | B Height (Inches) | System Conn. NPTF (Inches) | Shipping Weight (lbs.) |
|--------------|-----------------------|-------------------------------|---------------------|-------------------|----------------------------|------------------------|
| FPT-1C       | 1.5                   | .69                           | 8                   | 9                 | 3/4                        | 16                     |
| FPT-5C       | 2.1                   | .90                           | 10                  | 10                | 3/4                        | 21                     |
| FPT-12C      | 6.4                   | 3.30                          | 12                  | 16                | 3/4                        | 36                     |

Non-ASME models available.

## Stand Models Specifications

| Model Number | Tank Volume (Gallons) | Max. Accept. Volume (Gallons) | A Diameter (Inches) | B Height (Inches) | C Diameter (Inches) | System Conn. NPTF (Inches) | Shipping Weight (lbs.) |
|--------------|-----------------------|-------------------------------|---------------------|-------------------|---------------------|----------------------------|------------------------|
| FPT-20VC     | 8                     | 3.3                           | 12                  | 20                | 11                  | 3/4                        | 52                     |
| FPT-30VC     | 14                    | 9.0                           | 16                  | 19                | 13                  | 3/4                        | 97                     |
| FPT-42VC     | 17                    | 11.4                          | 16                  | 24                | 13                  | 3/4                        | 116                    |
| FPT-60VC     | 25                    | 11.4                          | 16                  | 33                | 13                  | 3/4                        | 154                    |
| FPT-70VC     | 34                    | 11.4                          | 16                  | 42                | 13                  | 3/4                        | 197                    |
| FPT-80VC     | 53                    | 34.0                          | 24                  | 36                | 16                  | 1 1/4                      | 251                    |
| FPT-120VC    | 66                    | 34.0                          | 24                  | 44                | 16                  | 1 1/4                      | 281                    |
| FPT-180VC    | 77                    | 34.0                          | 24                  | 49                | 16                  | 1 1/4                      | 353                    |
| FPT-210VC    | 90                    | 34.0                          | 24                  | 56                | 16                  | 1 1/4                      | 382                    |

Non-ASME models available.

# Anti-Freeze Systems Sizing Charts

## Glycerine Systems

### Sizing Chart for 48% Glycerin System

|     |  | System Pressure (psig) |    |    |          |          |          |          |          |          |           |           |
|-----|--|------------------------|----|----|----------|----------|----------|----------|----------|----------|-----------|-----------|
|     |  | 40                     | 50 | 60 | 70       | 80       | 90       | 100      | 110      | 120      | 130       | 140       |
| 1   |  |                        |    |    |          |          |          |          |          |          |           | FPT-5C    |
| 5   |  | FPT-1C                 |    |    |          |          |          |          |          |          | FPT-5C    | FPT-30VC  |
| 10  |  |                        |    |    |          |          |          |          |          | FPT-5C   |           | FPT-42VC  |
| 15  |  |                        |    |    |          |          |          |          | FPT-5C   |          |           | FPT-60VC  |
| 20  |  |                        |    |    |          |          | FPT-5C   |          |          |          |           | FPT-70VC  |
| 30  |  | FPT-5C                 |    |    |          |          |          |          |          |          |           | FPT-80VC  |
| 40  |  |                        |    |    |          |          |          |          |          | FPT-42VC | FPT-120VC |           |
| 50  |  |                        |    |    |          |          |          |          |          | FPT-60VC | FPT-210VC |           |
| 60  |  | FPT-12C                |    |    |          |          |          |          |          |          |           |           |
| 70  |  |                        |    |    |          |          |          |          |          |          |           |           |
| 80  |  |                        |    |    |          |          |          |          | FPT-42VC | FPT-70VC |           |           |
| 90  |  |                        |    |    | FPT-20VC |          |          |          |          |          |           |           |
| 100 |  |                        |    |    |          |          |          |          |          |          |           |           |
| 110 |  |                        |    |    |          |          |          |          | FPT-42VC | FPT-60VC |           | See Note  |
| 120 |  |                        |    |    |          |          |          |          |          |          | FPT-80VC  |           |
| 130 |  |                        |    |    | FPT-30VC |          |          |          |          |          |           |           |
| 140 |  |                        |    |    |          |          |          | FPT-42VC | FPT-60VC | FPT-70VC |           |           |
| 150 |  |                        |    |    |          |          |          |          |          |          |           | FPT-120VC |
| 200 |  |                        |    |    | FPT-42VC | FPT-42VC | FPT-60VC | FPT-70VC | FPT-80VC | FPT-80VC | FPT-180VC |           |

### Glycerine Specifications\*

| Solution (by volume) | Specific Gravity at 77°F (25°C) | °F  | °C    |
|----------------------|---------------------------------|-----|-------|
| 0%                   | 1.000                           | 32  | 0     |
| 5%                   | 1.014                           | 31  | -0.5  |
| 10%                  | 1.029                           | 28  | -2.2  |
| 15%                  | 1.043                           | 25  | -3.9  |
| 20%                  | 1.059                           | 20  | -6.7  |
| 25%                  | 1.071                           | 16  | -8.9  |
| 30%                  | 1.087                           | 10  | -12.0 |
| 35%                  | 1.100                           | 4   | -15.5 |
| 40%                  | 1.114                           | -2  | -19.0 |
| 45%                  | 1.130                           | -11 | -24.0 |
| 50%                  | 1.141                           | -19 | -28.0 |

\*Chemically Pure (CP) or United States Pharmacopoeia (USP) 96.5%.  
Ref. NFPA13, 2010 TIA 10-2 Edition.

## Propylene Glycol Systems

### Sizing Chart for 38% Propylene Glycol System

|     |  | System Pressure (psig) |    |    |          |          |          |          |          |           |          |           |
|-----|--|------------------------|----|----|----------|----------|----------|----------|----------|-----------|----------|-----------|
|     |  | 40                     | 50 | 60 | 70       | 80       | 90       | 100      | 110      | 120       | 130      | 140       |
| 1   |  |                        |    |    |          |          |          |          |          |           |          | FPT-5C    |
| 5   |  | FPT-1C                 |    |    |          |          |          |          |          |           | FPT-5C   | FPT-20VC  |
| 10  |  |                        |    |    |          |          |          |          |          | FPT-5C    |          | FPT-42VC  |
| 15  |  |                        |    |    |          |          |          |          | FPT-5C   |           |          | FPT-60VC  |
| 20  |  |                        |    |    |          |          | FPT-5C   |          |          |           |          | FPT-70VC  |
| 30  |  | FPT-5C                 |    |    |          |          |          |          |          |           |          | FPT-80VC  |
| 40  |  |                        |    |    |          |          |          |          |          |           |          | FPT-120VC |
| 50  |  |                        |    |    |          |          |          |          |          |           | FPT-42VC | FPT-180VC |
| 60  |  | FPT-12C                |    |    |          |          |          |          |          |           | FPT-60VC | FPT-210VC |
| 70  |  |                        |    |    |          |          |          |          |          |           |          |           |
| 80  |  |                        |    |    |          |          |          |          | FPT-42VC |           |          |           |
| 90  |  |                        |    |    |          |          |          |          |          | FPT-70VC  |          |           |
| 100 |  |                        |    |    | FPT-20VC |          |          |          |          |           |          |           |
| 110 |  |                        |    |    |          |          |          |          |          | FPT-60VC  |          | See Note  |
| 120 |  |                        |    |    |          |          |          |          | FPT-42VC |           |          |           |
| 130 |  |                        |    |    | FPT-30VC |          |          |          |          |           | FPT-80VC |           |
| 140 |  |                        |    |    |          |          |          |          | FPT-60VC | FPT-70VC  |          |           |
| 150 |  |                        |    |    |          |          |          |          | FPT-42VC |           |          |           |
| 200 |  |                        |    |    | FPT-42VC | FPT-60VC | FPT-70VC | FPT-80VC | FPT-80VC | FPT-120VC |          |           |

### Propylene Glycol Specifications

| Solution (by volume) | Specific Gravity at 77°F (25°C) | °F | °C  |
|----------------------|---------------------------------|----|-----|
| 0%                   | 1.000                           | 32 | 0   |
| 5%                   | 1.004                           | 26 | -3  |
| 10%                  | 1.008                           | 25 | -4  |
| 15%                  | 1.012                           | 22 | -6  |
| 20%                  | 1.016                           | 19 | -7  |
| 25%                  | 1.020                           | 15 | -10 |
| 30%                  | 1.024                           | 11 | -12 |
| 35%                  | 1.028                           | 2  | -17 |
| 40%                  | 1.032                           | -6 | -21 |

**Note:** AMTROL recommends installing a pressure reducing valve before the backflow preventer where system pressure is 140 psig and system volume is above 60 gallons.

Assumptions: Maximum Working Pressure: 175 psig.  
Change in Temperature: 100°F (37.7°C).  
Expansion Tank Precharge: 2 psig below system static pressure.





# Made in the USA

From modest beginnings in founder Chet Kirk's garage to our current, state-of-the-art facilities, Amtrol is still proudly manufacturing products in the USA. Our talented, dedicated associates are committed to providing you with the highest quality, most reliable and best performing products on the market.



*Associates at our West Warwick, Rhode Island manufacturing facility.*

**Additional support materials include:**

- Commercial and Industrial Products Catalog (MC 4401)
- Data Submittal Sheets (MC 4400)
- Engineering Handbook (MC 4402P)
- Product Sizing programs on [www.amtrol.com](http://www.amtrol.com)
- Revit Files (MC 10205)
- AutoCAD Files (MC 10029)



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